

NEW SPATIAL PATTERNS OF SUBURBAN HOUSING IN PRAGUE URBAN REGION

Martin Ouředníček

Charles University in Prague, Faculty of Science, Department of Social Geography and Regional Development, Prague, Czechia

Abstract: The paper investigates spatial distribution of the new housing construction within the suburban zone of Prague after the year 2000. Analysis is based on evaluation of the new housing construction on two geographical levels. First, the study uses data for apartments finished in communities of Prague-East and Prague-West districts and cadastral units of the city of Prague during 1997 – 2004. Then, we exploit results of detailed terrain investigation of selected settlements of suburban zone held in Spring 2004. A variety of forms of buildings and slow sprawling diffusion of new housing throughout the most communities of wider hinterland of Prague characterize gradual increase of suburban construction. Today, even almost inaccessible settlements with very poor social and technical infrastructure are growing. New localities are mostly adjoined to the built-up area of former villages. On the other hand, several examples of uncontrolled development with leapfrog spatial patterns were also described. Spatial development is managed solely by master plans of individual communities, while Metropolitan region as a whole still lacks planning document dealing with regional problems of transportation and environment on the level of entire agglomeration. We can presuppose gradual suburban development in the near future, feeding with rich supply of new housing and stable demand of wealthy Prague inhabitants. This development is to a great extent result of liberal market behaviour of actors shaping suburban zone – owners of land, investors, and local governments – and is not yet considerably regulated by tools of spatial or regional planning.

Key words: suburbanisation, housing construction, urban sprawl

1. INTRODUCTION

Suburbanisation today belongs to dominant processes, which create a new spatial organisation of urban regions accros the European post-socialist countries (Harth et al., 1998, Kok, Kovács, 1999, Ott, 2001, Brown, Schafft, 2002, Matlovič, Sedláková, 2004, Tammaru et al., 2004). Similarly, in the Czech Republic we are witnesses of increasing population deconcentration from urban cores to the close hinterland of large cities from the mid of 1990s. This process was described and evaluated several times by the Czech geographers (Ptáček, 1996, Létal et al., 2001, Sýkora, 1999, 2001, 2002, Mulíček, Olšová, 2002, Perlín, 2002, Andrle, 2003, Ouředníček, 2003, 2007, Čermák, 2005,

Sýkora, Ouředníček, 2006) as well as by specialists from other scientific disciplines (Librová, 1996, 1997, Körner, 2001, Jackson, 2002, Hnilička, 2005). The most intensive suburban development is visible around the largest Czech cities and especially around Prague. These trends of population deconcentration even strengthened at the beginning of 21st century.

The purpose of this article is to describe and look into the new trends in suburban housing development within the hinterland of Prague after year 2000. Main attention is put on investigation of spatial distribution of new residential construction from the viewpoint of two different geographical scales; the first part of our empirical work deals with distribution of new housing on the level of Prague urban region and describes trends of sprawl of urban region as a whole. Analysis has been based on the data of finished housing construction sorted by cadastral units of Prague and by communities of administrative districts of Prague-East and Prague-West¹. The Czech Statistical Office collected the data during 1997 – 2004. Then we follow with detailed evaluation of locations of the newly built areas of housing compared with the built-up area of the former suburban settlements. The study uses results of comprehensive street-by-street mapping of suburban settlements held during the spring 2004. We conclude with the discussion of possible variants of future suburban development in Prague urban region based on interviews with the mayors of suburban communities. The crucial question for the study of spatial patterns of suburban housing is, whether communities located in the hinterland of Prague are endangered by uncontrolled and unsustainable development described usually as urban sprawl (Sýkora, 2001, 2002, Jackson, 2002, Hnilička, 2005).

2. SPATIAL PATTERNS OF NEW HOUSING CONSTRUCTION

New boom of housing construction in Prague and in large extent within its hinterland started from the year 2001 (Figure 1). The intensity of finished apartment (per 10 thousand of people) has more than tripled in comparison with the second half of 1990s. At the same time the spatial distribution of the new residential construction has changed considerably inside urban region. Almost one third of all apartments finished within Prague urban region in 2002 – 2004 is realized in communities of two adjacent administrative districts, even though the demand for housing in the compact city has also gradually increased in recent times. Generally, there is significant extending supply of

1. various types of suburban housing – from small apartments in multiple dwelling houses to luxurious large villas with large gardens;
2. various forms of realized projects – from greenfield development of several hundreds of family houses to projects of individual solitaire houses; and finally
3. various locations in almost all communities of wider hinterland irrespective to population size of settlement or its geographic location.

The supply of the new suburban housing is enormous in the present day. Moreover, also number of people who could (using mortgages) afford their own house namely in

¹ Prague urban region consists of Prague and two surrounding districts of Prague-East and Prague-West. This area could be suggested as „daily urban system“ with strong interrelationship between people and dense network of human activities (esp. commuting to work, services and entertainment).

Prague urban region is growing. Also other barriers of suburban development are step-by-step diminishing. This theme is described more thoroughly in concluding part of this article.

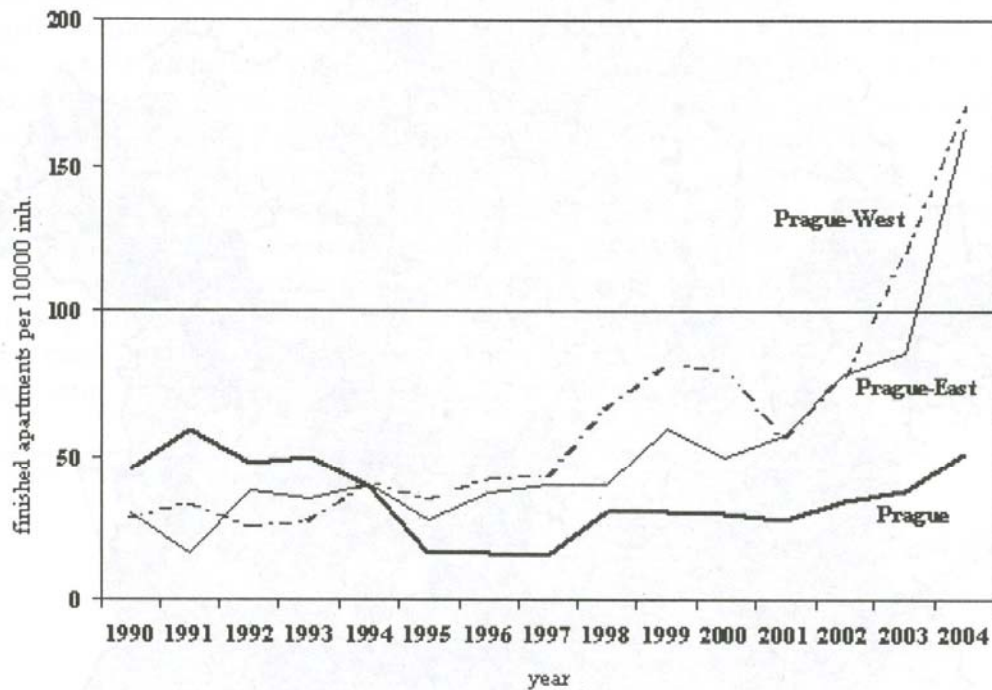


Figure 1 Housing construction in Prague and its hinterland finished during 1990 – 2004. Source: Districts of the Czech Republic 1990 – 2004, CZSO

The spatial distribution of the new housing construction on the level of entire urban region is evaluated on the basis of data for apartments finished during 1997 – 2003 from annual statistic evidence of the Czech Statistical Office. This data has not been used for the geographical analysis before and is (unlike ageing 2001 census data) suitable for evaluation of actual development of (sub)urbanisation processes. The suburban zone or hinterland of Prague is delimited for the purpose of our study as all settlements behind the compact built-up area of Prague and consists of all communities of administrative districts of Prague-East and Prague-West and peripheral cadastral units within the administrative boundary of Prague. It is important to incorporate to the study of suburbanisation also these areas, while vast areas behind largest housing estates were the first localities with intensive suburban construction at the beginning of 1990s. Spatial distribution of housing construction in Prague urban region finished during 1997 – 2003 is depicted on the following map (Figure 2).

Observation of new housing construction in suburban communities brought about knowledge of the uneven development within Prague's hinterland (Figure 2). The highest intensity of housing construction is concentrated to the south and southeastern part of suburban zone. These localities are distinguishing by natural beauty, with nice forests and hilly terrain, with easy access to the centre using radial communication axes and the D1 highway. The north hinterland of Prague has only several scattered localities of suburban development with higher intensity of housing construction.

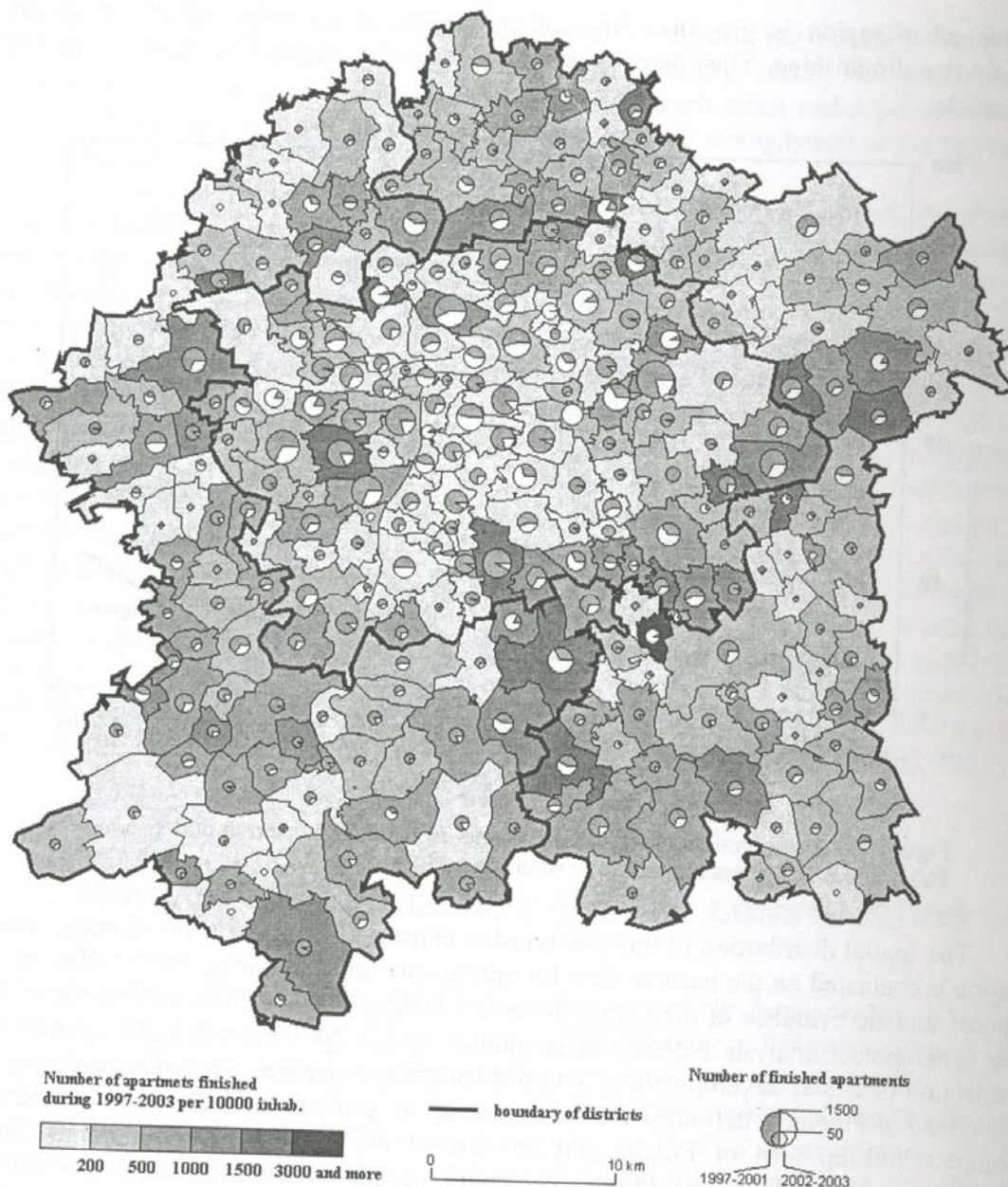


Figure 2 Spatial distribution of housing construction in Prague urban region finished during 1997 – 2003 and share of apartments finished during 2002 – 2003. Source: CZSO 2004

Pioneer areas of suburban development were located mostly to peripheral parts of Prague (i.e. Šeberov, Újezd) or to a selected larger communities scattered throughout the hinterland (Kamenice, Dolní Břežany, Jesenice). A number of ambitious projects has been realised only partially or has been stopped at all (Velké Přílepy, Nová Ves pod Pleší). Nowadays, suburban development affects almost all communities of the Prague urban region. The diffusion of suburban residential construction and the in-flow of new suburbanites infill even less accessible communities and recreational localities in the more distant areas of the urban region. This is obvious from the diagrams (Figure 2), which show share of the most recent housing construction realised during 2002 and 2003

year. Increase of suburban housing construction is noticeable in the south hinterland, where suburban development was strong all the time and is strengthening gradually till these days. Currently wider dispersion of the new housing is observable around Prague. Suburban housing has sprawled to more distant and less accessible localities. Although Prague has plenty of areas suitable for housing construction within its administrative boundaries, developers and investors seek rather for localities behind the city limits. This is partially due to much lower costs of land and housing expenditures but certain role plays also easier negotiation with offices and local governments out of Prague.

Suburban communities without extensive plans for new residential development are rather exception around Prague. Almost all communities have included relatively large areas for future housing construction in their master plans (Figure 3). It is not exception that new housing development overbalances number of houses in the former settlement. Results of terrain investigation held two years ago (2004), show many quite large areas with already built infrastructure in communities with insufficient social and technical infrastructure in a very unfavourable location within inner periphery of urban region.

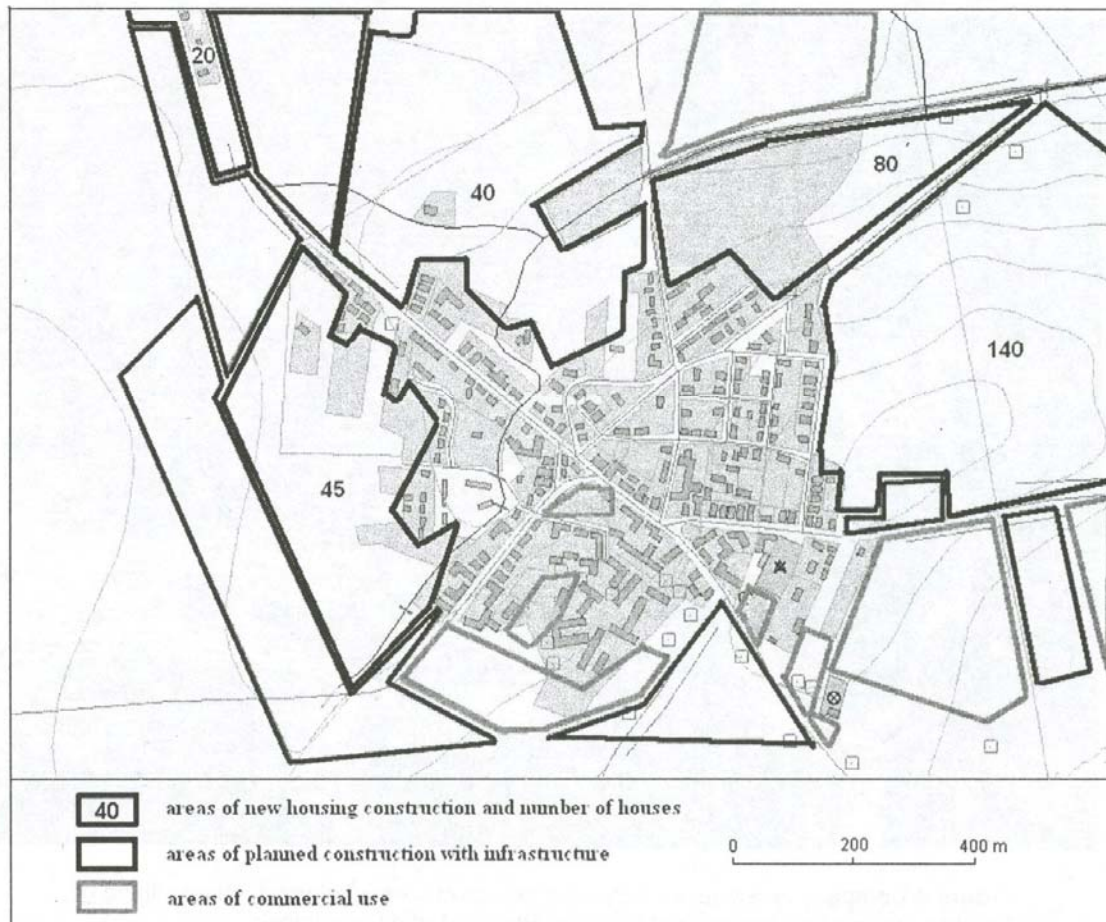


Figure 3 New and planned housing development in Jesenice municipality.
Source: Own field research, May 2004

Spatial distribution of new housing has been investigated on the micro-level of individual settlements. By the spring of 2004 we have collected ² detailed informations about new housing in the selected suburban communities of Prague urban region. Using street-by-street mapping more than 300 maps of individual settlements were gathered with records of all houses finished during period 1990 – 2004. Moreover, the maps contain building lots prepared for a new construction of family houses and commercial buildings. Subsequent analysis of these maps has proved diversity of the new development concerning size, spatial distribution and form of newly built housing.

Prague's hinterland has no completely new autonomous settlement. New development is mainly attached to the built-up area of former villages (Figures 3 and 4). Only a few examples of isolated projects of tens of houses constructed "in the middle of a sunflower field" were discovered (Figure 5). In comparison with North American suburbanisation a spatial pattern of Prague's suburban development is influenced by a dense network of small settlements in the hinterland of the city and by the absence of large-scale greenfield projects.

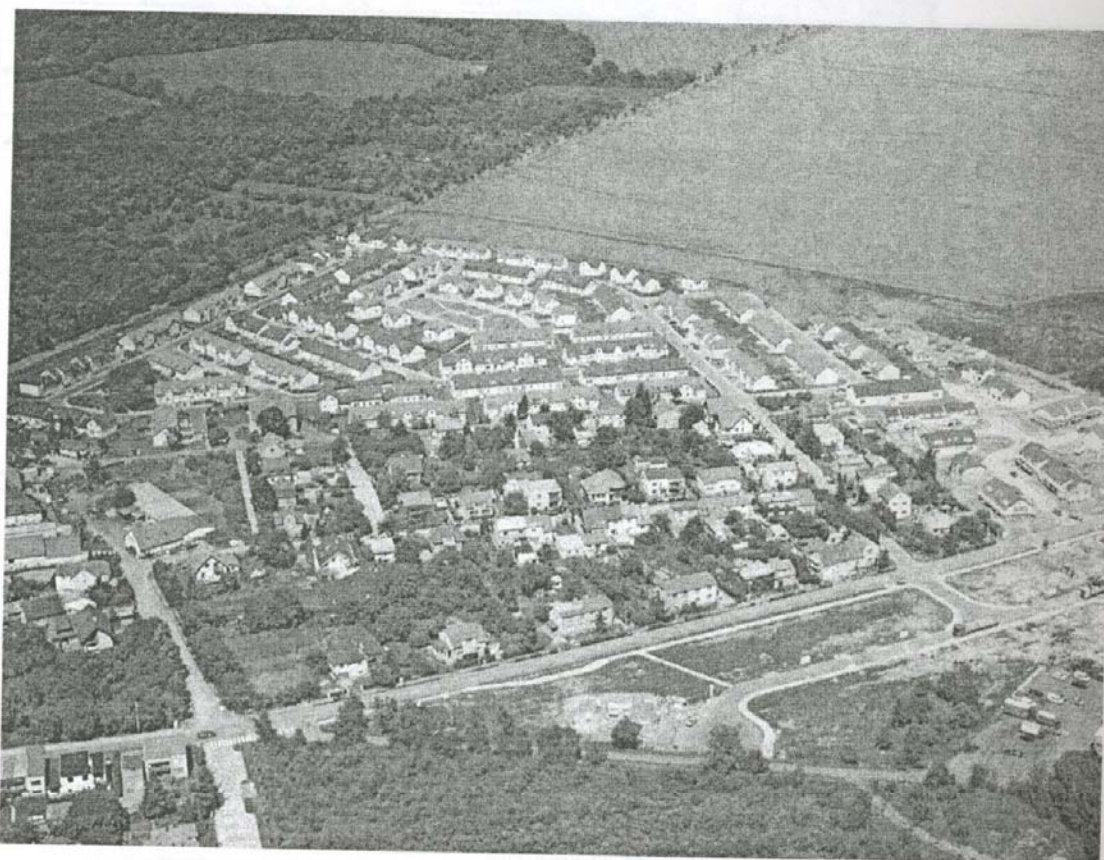


Figure 4 Compact development projected in vacant area adjoining to older village of Satalice (city part on the north of Prague). Photo: Martin Ouředníček

The location of new housing development can be regulated by master plan. On the contrary, in many localities new development has started even before master plans were

² Investigation of suburban housing construction was held during May and June 2004 in 144 suburban communities and peripheral city parts of Prague. Field research was done with help of students of the 2nd year of the Geography and cartography programme at the Faculty of Science.

approved. Master plans are sometimes wideopen to any potential development without any attempt for regulation. Huge housing construction in the most exponed area of Prague urban region (i.e. municipality of Jesenice on the Figure 3) is good example of such an extensive development. The master plan expects new residential and commercial development will cover almost entire area of communal cadastre. Apart from the massive development of family houses also complexes of multidwellings houses and buildings designed for commercial use and services are built in greater extent.

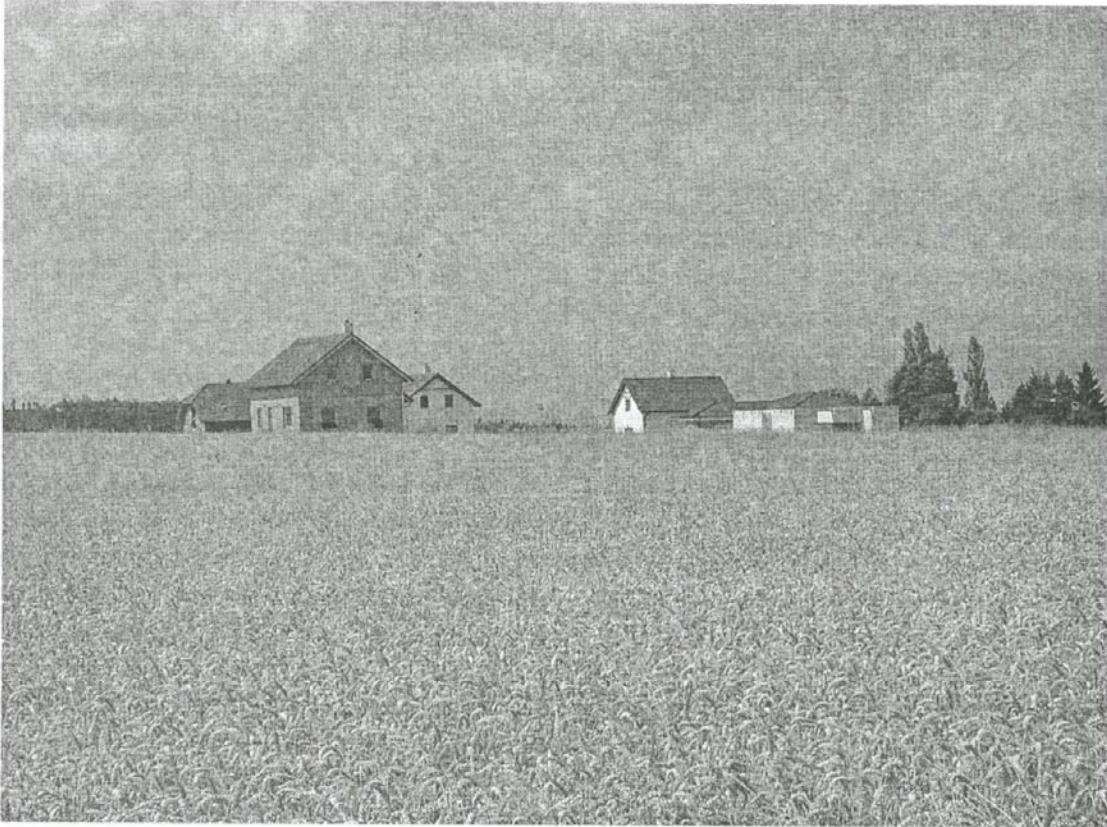


Figure 5 Example of wild development in the middle of corn field in Přišimasy (7 km east of the border of Prague near Úvaly). Photo: Martin Ouředníček

The experience from the public hearing of master plans of suburban communities demonstrate considerable divergences between interests of landowners and investors on the one side and effort of communities for more sustainable development embodied in selected higher quality master plans on the other. The municipal councilors, buildings offices and also planners are exposed to extreme press from the landowners and investors, who struggle for immediate conversion of their land from agricultural land to building lots and investment. The gap between use of land for agriculture and housing is immense and the value could be twenty- to hundredfold higher after the change of land use. Consequently, this press often leads to professional misconduct of executive institutions responsible for correct land use and regulation of a new construction. Neither protection of high-quality soil nor various types of protective zones and protected landscape areas are sufficient barriers for sprawling development of selected developers within Prague urban region.

3. CONCLUSION AND DISCUSSION OF FUTURE SUBURBAN DEVELOPMENT

The plans of suburban communities for the future development are enormous. This fact has been confirmed by the results of questionnaire survey of 144 mayors of suburban communities focused on their opinions on future development of suburbanisation during next 5 – 10 years. The mayors estimate together more than 20 thousand of both family and multiple dwelling houses to be constructed in specified period. Moreover, these estimations are not only wishes of councillors but they are largely based on already approved projects. Part of planned development is under construction or infrastructure has been already done. Good example of current extension and planned areas of the new construction give Figures 4 and 5. The three quarters of interviewed mayors want to support inflow of the new residents and almost all of them anticipate greater or at least present-day intensity of housing construction in the near future. They expect that the population of Prague's hinterland, with current population of 200 thousand inhabitants, will increase by another 100 thousand people during the next 5 – 10 years.

The development of suburban housing construction (both residential and commercial) is significantly influenced by activities of actors and institutions on the local level – among them mainly landowners, real estate agencies and developers. The role of spatial planning is perceived rather as a barrier of development, and master plan serves often as a purpose-built tool for the new housing construction. Useful document that can solve many of negative consequences of suburbanisation around Prague could be Master plan of Prague-Central Bohemia Regional Agglomeration. However, this document has been prepared already more than 10 years and is still unfinished, blocked by contradictory interests of both self-governed regions – Prague and Central Bohemia. Certain barriers for mutual cooperation demonstrate different potentials of "rich" Prague and "poor" Central Bohemia region in drawing the money from EU funds. Management of spatial development is then fully in competition of communal self-governemnt and regional problems of transportation, technical and social infrastructure or environment are taken into consideration only exceptionally.

The future development of suburban housing depends upon set of various factors. The mayors of communities have stated as a barriers of future housing construction mainly unsolved land ownership and insufficient infrastructure. These factors will be likely solved through time, what will enable development of additional areas. Considerable activity of communities to attract new residents, rich supply of various types of houses and lots provided by construction companies, favourable mortgage credits and state support for building savings will maintain intensive housing construction at least for the following several years. That is way on the supply side there are all conditions for continuous development. At the same time there are widening opportunities for inner city housing as construction of new condominiums and reconstruction of rental apartments revive gradually. The rent deregulation will almost certainly push away poorer households and old-age pensioners living in spacious and attractive apartments within the inner city. Abolition of rent regulation would bring decrease of rents on reality market in Prague. It would probably lead to increasing accessibility of housing within the inner city of Prague.

As an important factor influencing amount of new suburban housing could be perceived the number of people who still prefer and could afford family house with

garden in the hinterland of Prague. The analysis of migration streams composition to Prague's hinterland (Ouředníček 2007) shows that many middle-aged people, who wanted to live in own house during socialist era have already moved to suburbs. In condition that no large changes in households composition and in life style preferences will occur, we can expect gradual development of suburban housing construction during next 10 – 15 years in the hinterland of Prague and most probably also around other large and medium-sized Czech cities.

Acknowledgements

The author would like to thank ing. Petra Cuřínová and Mgr. Darina Posová for data processing and consulting and for financial support provided by Grant Agency of the Czech Republic project no. 403/04/P129 „Urbanisation processes in Prague urban region“ and by the Ministry of Education, Youth and Sports of the Czech Republic, project no. MSM0021620831 "Geographic Systems and Risk Processes in the Context of Global Change and European Integration".

References

- ANDRLE, A. 2003. *Fakta a úvahy o vývoji osídlení v České republice*. Urbanismus a územní rozvoj 6, no. 6, 16-35.
- BROWN, D., SHAFFT, K. 2002. *Population Deconcentration in Hungary during the Post-Socialist Transition*. Journal of Rural Studies 18, no. 3, 233-244.
- ČERMÁK, Z. 2005. *Migrace a suburbanizační procesy v České republice*. Demografie 47, no. 3, 169-176.
- HARTH, A., HERLYN, U., SCHELLER, G. 1998. *Segregation in Eastern German Cities: Gentrification, Downgrading of Large Estates, and Suburbanization*. Netherlands Journal of Housing and the Built Environment 13, no. 4, 421-437.
- HNILÍČKA, P. 2005. *Sídelní kaše. Otázky k suburbánní výstavbě kolonií rodinných domů*. Era. Brno.
- JACKSON, J. 2002. *Urban Sprawl*. Urbanismus a územní rozvoj 5, no. 6, 21-28.
- KOK, H., KOVÁCS, Z. 1999. *The Process of Sub-urbanization in the Metropolitan Area of Budapest*. Netherlands Journal of Housing and Built Environment 14, no. 2, 119-141.
- KÖRNER, M. 2001. *Několik poznámek k článku „Demografická stagnace našich největších měst“*. Urbanismus a územní rozvoj 4, no. 6, 22-24.
- LÉTAL, A., SMOLOVÁ, I., SZCZYRBA, Z. 2001. *Transformace příměstské krajiny*. Urbanismus a územní rozvoj 4, no. 4, 15-21.
- LIBROVÁ, H. 1996. *Decentralizace osídlení – vize a realita*. Část první: vize, postoje k venkovu a potenciální migrace v ČR. Sociologický časopis 22, no. 3, 285-296.
- LIBROVÁ, H. 1997. *Decentralizace osídlení – vize a realita*. Část druhá: decentralizace v realitě České republiky. Sociologický časopis 23, no. 1, 27-40.
- MATLOVIČ, R., SEDLÁKOVÁ, A. 2004. *Suburbanizácia – transformačný proces priestorovej organizácie postkomunistických miest (empirický príklad Prešova)*. Acta Facultatis Studiorum Humanitatis et Naturae Universitatis Prešovensis, Přírodní vědy 42, Folia Geographica 7, 75-103.
- MULÍČEK, O., OLŠOVÁ, I. 2002. *Město Brno a důsledky různých forem urbanizace*. Urbanismus a územní rozvoj 5, no. 6, 17-21.
- OTT, T. 2001. *From Concentration to Deconcentration — Migration Patterns in the Post-socialist City*. Cities 18, no. 6, 403-412.
- OUŘEDNÍČEK, M. 2003. *Suburbanizace Prahy*. Sociologický časopis 39, no. 2, 235-253.

- OUŘEDNÍČEK, M. 2007 forthcoming. *Differential Suburban Development in Prague Urban Region*. Geografiska Annaler 8°B, no. 2
- PERLÍN, R. 2002. *Nízkopodlažní výstavba v územních plánech obcí v zázemí Prahy*. In: Sýkora, L. ed.: *Suburbanizace a její sociální, ekonomické a ekologické důsledky*. Ústav pro ekopolitiku, Prague, 141-155.
- PTÁČEK, P. 1996. *Suburbanizační proces v zázemí Prahy*. Master thesis. Charles University in Prague, Faculty of Science, Department of Social Geography and Regional Development, Prague.
- SÝKORA, L. 1999. *Changes in the internal spatial structure of post-communist Prague*. GeoJournal 49, no. 1, 79-89.
- SÝKORA, L. 2001. *Živelná urbanizace příměstské krajiny a její ekonomické, sociální a environmentální důsledky*. Environmentální aspekty podnikání 3, no. 1, 25-27.
- SÝKORA, L. ed. 2002. *Suburbanizace a její sociální, ekonomické a ekologické důsledky*. Ústav pro ekopolitiku, Prague.
- SÝKORA, L., OUŘEDNÍČEK, M. 2006 forthcoming. *Sprawling post-communist metropolis: commercial and residential suburbanisation in Prague and Brno, the Czech Republic*. In: Dijst, M., Razin, E., Vazquez, C. (eds.): *Employment Deconcentration in European Metropolitan Areas: Market Forces versus Planning Regulations*. Kluwer.
- TAMMARU, T., KULU, H., KASK, I. 2004. *Urbanisation, Suburbanisation, and Counterurbanisation in Estonia*. Eurasian Geography and Economics 45, no. 3, 212-229.

Other sources

- Database of finished apartments by cadastral units of Prague and by communities of administrative districts of Prague-East and Prague-West in 1997 – 2003, CZSO, Prague, 2004.
- Districts of the Czech Republic 1990 – 2004, Czech Statistical Office, Prague.

Nové prostorové formy bydlení v suburbánní zóně Prahy

Resume

Příspěvek je věnován hodnocení rozmístění nové bytové výstavby v suburbánní zóně Prahy po roce 2000. Analýza je založena na sledování nové výstavby na dvou měřítkových úrovních. Studie využívá data za dokončené byty pro obce okresů Praha-východ a Praha-západ a katastrální území Prahy z let 1997 – 2004 a výsledky detailního terénního šetření výstavby v jednotlivých sídlech suburbánní zóny provedeného v roce 2004. Zvýšený nárůst suburbánní výstavby se v současnosti projevuje rozmanitými formami a postupnou difúzí nového bydlení do všech obcí v širším zázemí města. Rozvíjejí se i sídla s velmi špatnou dostupností, sociální a technickou infrastrukturou. Lokality nové výstavby jsou ve většině případů připojeny k původní venkovské zástavbě. Vyskytují se však i případy neřízeného rozvoje s roztroušenou výstavbou typickou pro urban sprawl. Územní rozvoj je určován pouze územními plány jednotlivých obcí, pražská aglomerace postrádá plánovací dokument řešící dopravní a environmentální problematiku na úrovni celého městského regionu. V nejbližší budoucnosti lze předpokládat další rozvoj suburbánní výstavby, který je podporován rozmanitou nabídkou bydlení i stabilní poptávkou ekonomicky silného obyvatelstva Prahy a aktivitou vlastníků pozemků, obcí, developerů a dalších aktérů ovlivňujících rozvoj zázemí Prahy. Tento rozvoj je do značné míry výsledkem tržního chování zúčastněných aktérů a prozatím není významným způsobem usměrňován nástroji územního nebo regionálního plánování.